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p7.5tk

Not!

Apal

GGCCAAATTGAAAACTAGACTATTATTGACAGGGGGCCCATG GGC CCG GCC GCC AAC GGC GGC GGA
Met Gly Pro Ala Ala Asn Gly Gly

tk coding sequence

pE/Ltk

synthetic E/L promoter

Not!

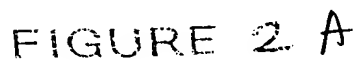
Apai

GGCCAAAATTGAAATTTTATTTTTTTTGGATATATAAAGGGCCGCCCATG GGC CCG GCC GCC AAC GGC GGA
Met Gly Pro Ala Asn Gly Gly

tk coding sequence

FIGURE 1

Year	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	



B

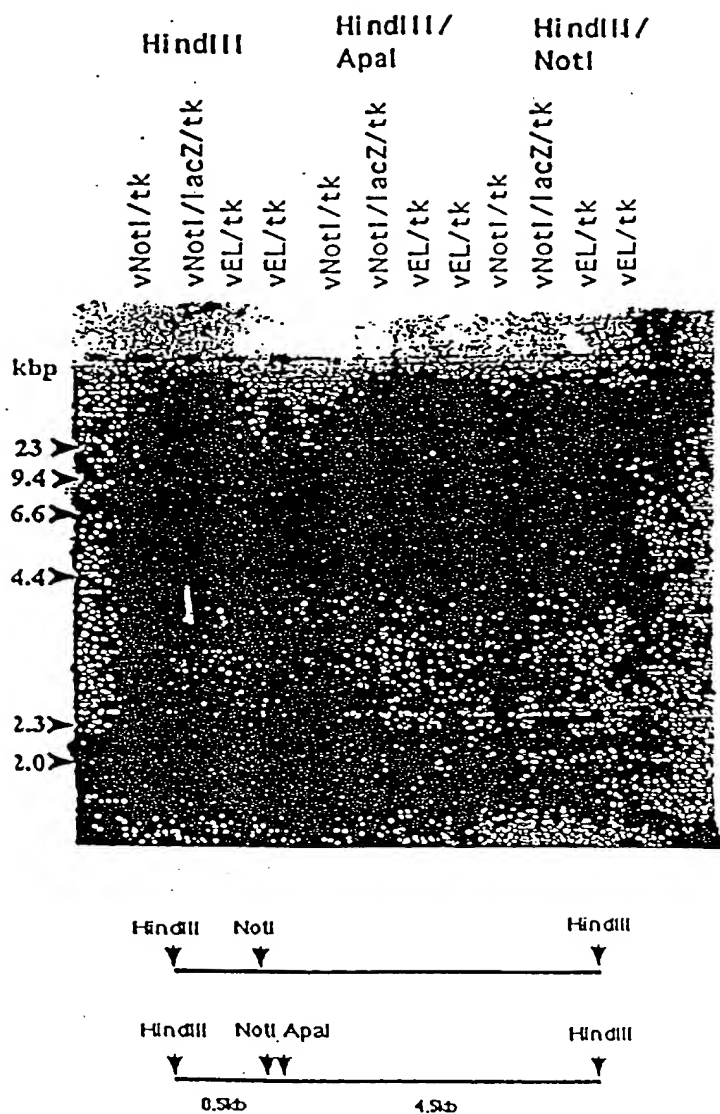


FIGURE 2B

Apal

NotI

λ WR WR vEL v7.5 vNotI/k WR vEL v7.5 vNotI/k



WR

NotI

vNotI/k

NotI

vEL/k

v7.5/k

NotI Apal

FIGURE 3

Phi X
WR
pJNot
vNotI/tk
vpNotI
p7.5/tk
v7.5/tk
vNotI/lacZ/tk
pEL/tk
vEL/tk

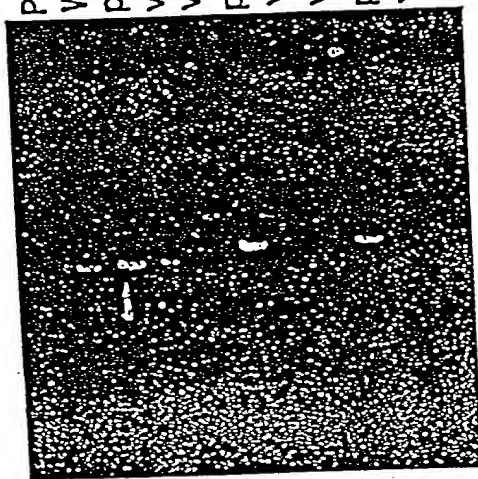


FIGURE 4

B-Glucoronidase Analysis of Recombinant Viruses

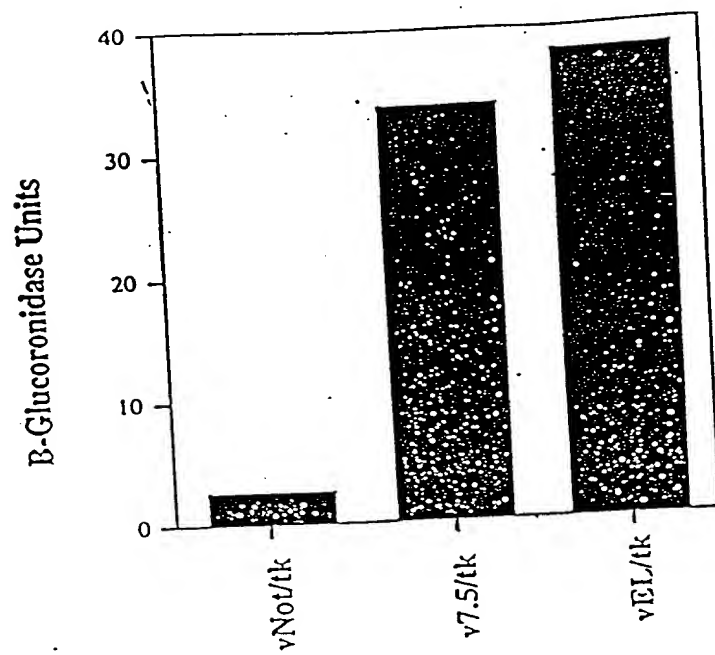


FIGURE 5

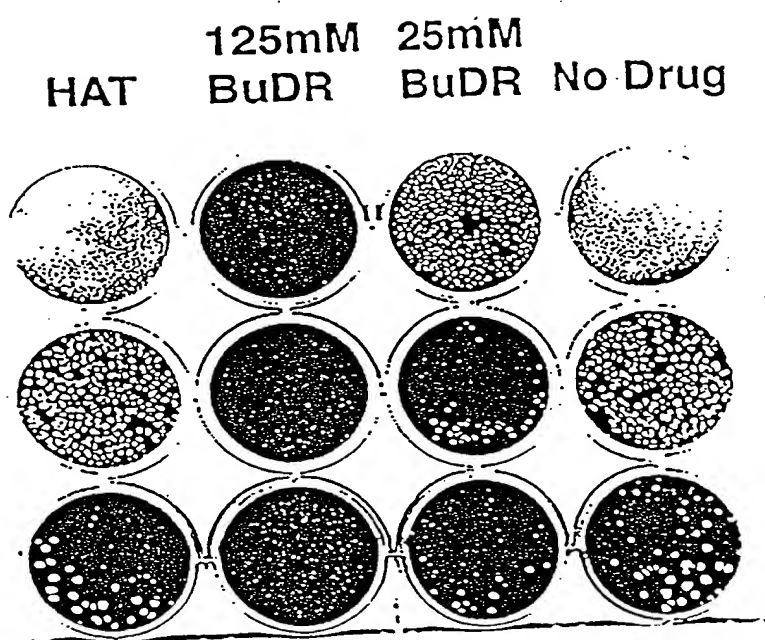


FIGURE 6

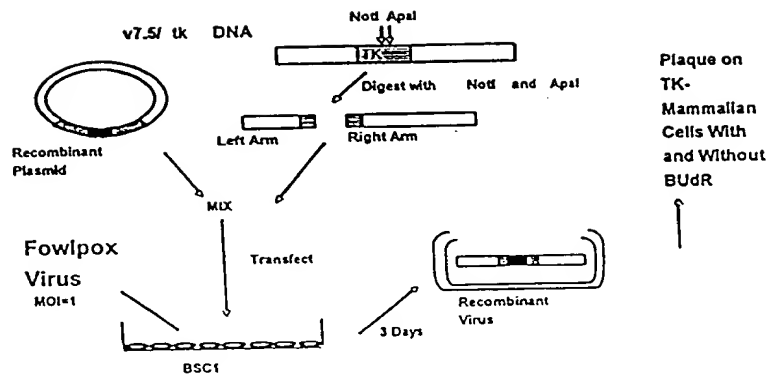


FIGURE 7

1. p7.5tk

5'-GGCCAAAATTGAAAACTAGATCTATTTATTGCACGCGGCC^XCCATGGCCCGGCC-3'

2. p7.5/ATG0/tk

7.5K PROMOTER NOTI BAMHI SMAI PSTI

5'-GGCCAAAAATTGAAAAAACTAGATCTATTATTGCACGGCGCCGCGTGGATCCCCGGGCTGCAGGAA

	TRANSCRIPTION	STOP SIGNAL
	TRANSLATION	STOP CODONS
SALI		

TTTCGATATCAAGCTTATCGATACCGTTCGCCTCGAGGGGGCCCTAACTAACTAATTTGTTTTTGT

APAI

GGGCCGGCC-3'

3. p7.5/ATG1/hk

7.5K PROMOTER	NOTI	START	CODON BAMHI	SMAI	PSTI
5'-GGCCAAAATTGAAAAC TAGATCTATTATTGCACGCGCGGCCCATGGTGGATCCCCCGGGCTGCAGGAA					

TRANSLATION	TRANSCRIPTION
-------------	---------------

SALI	STOP CODONS	STOP SIGNAL
------	-------------	-------------

TTCGATATCAAGCTTATCGATACCGTCGACCTCGAGGGGGGCCCTAACTAATTTGTTTTGT

APAI

GGGCCCGGCC-3'

4. p7.5/ATG2/tk

5'-GGCCAAAATTGAAAACTAGATCTATTATTGCACGCGGGCCGCCATTGAGTGGATCCCCCGGGCTGCAGGA

SALI	TRANSLATION	TRANSCRIPTION
	STOP CODONS	STOP SIGNAL

TTCGATATCAAGCTTATCGATACCGTCGACC

APAI

GGGCCGGCC-3'

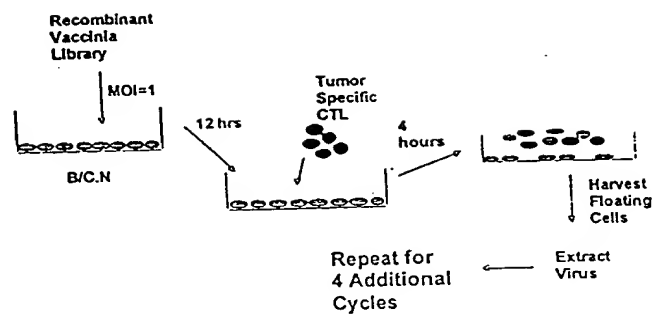


FIGURE 9

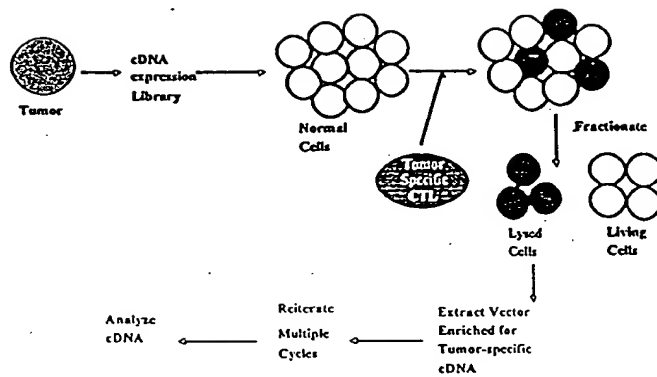


FIGURE 10

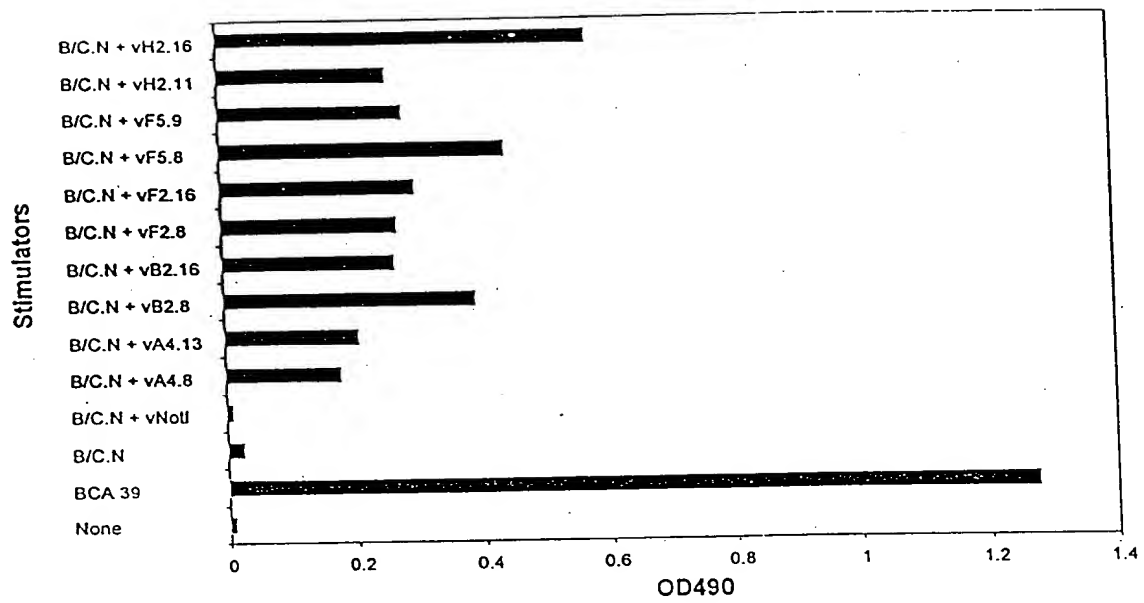


FIGURE IIA

<u>Target</u>	Percent Specific Lysis	
	Effector : Target	
	<u>10:1</u>	<u>2:1</u>
BCA 34	68.4	54.8
BCA 39	36.6	23.4
B/C.N	0.2	0.3
B/C.N + vF5.8	47.5	34.6
B/C.N + vH2.16	67.8	56.2
B/C.N + vaccinia vector	0	0.2

FIGURE 11B

A. L3

Amino Acid															
Position	45	46	47	48	49	50	51	52	53	54	55	56			
Sequence	A	F	L	G	Y	K	A	G	M	T	H	I			
Nucleotide	GCC	TTT	CTG	GGT	TAC	AAG	GCT	GGC	ATG	ACC	CAC	ATC			

B. H2.16

Amino Acid															
Position	45	46	47	48	49	50	51	52	53	54	55	56			
Sequence	A	F	L	G	Y	K	A	G	M	I	H	I			
Nucleotide	---	---	---	---	---	---	---	---	---	-T-	---	---			

FIGURE 12

Percent Specific Lysis

Effector: Target

<u>Target</u>	<u>10:1</u>	<u>2:1</u>
BCA 34	62.4	32.1
BCA 39	49.7	23.6
B/C.N	3.3	0.2
B/C.N + L3 peptide 48-56(I54)	46.0	16.1
B/C.N + L3 peptide 48-56(T54)	2.0	0
B/C.N + L3 peptide 45-54(I54)	0	0

FIGURE 13A

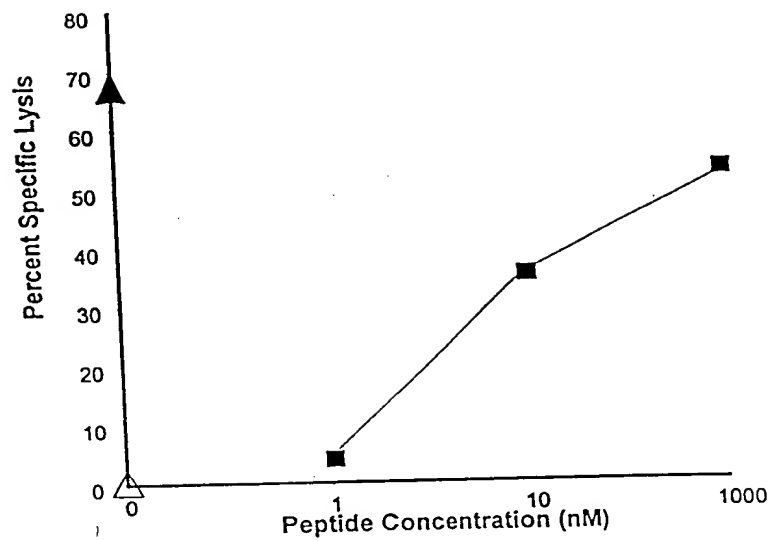
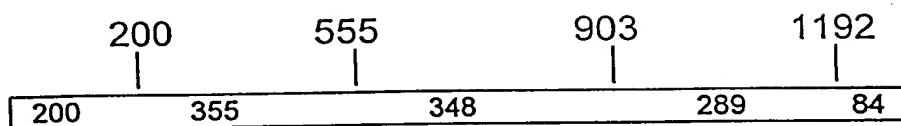


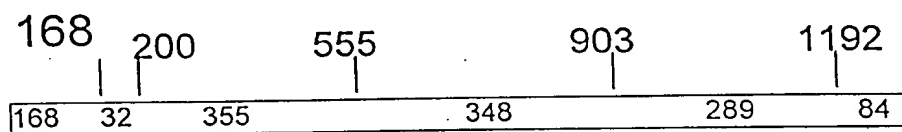
FIGURE 13B

Published L3 (1276 bp)



168-171 = GACC

H2.16 (1276 bp)



168-171 = GATC

FIGURE 14A

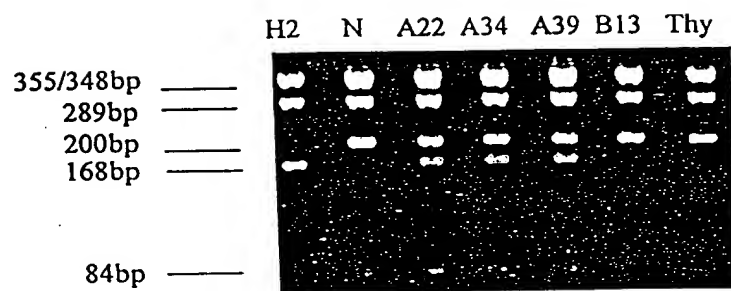


FIGURE 14B

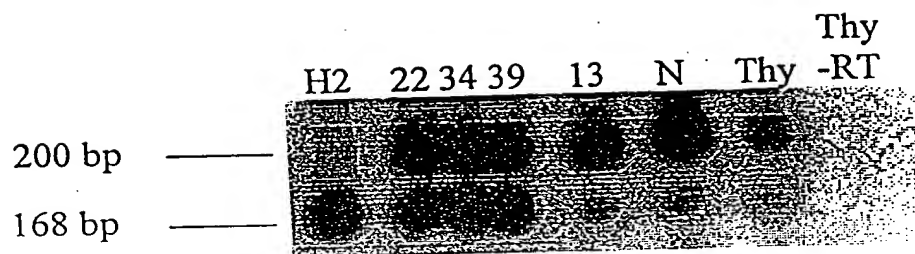


FIGURE 14C

<u>Target</u>	Percent Specific Lysis Immunogen			
	vH2.16		v7.5/tk	
	<u>40:1</u>	<u>10:1</u>	<u>40:1</u>	<u>10:1</u>
BCA 34	33.6	12.9	5.7	4.0
BCA 39	22.1	9.0	5.3	3.1
B/C.N + L3 48-56 (I54)	48.2	20.2	3.9	1.5
B/C.N + L3 48-56 (T54)	6.4	1.4	1.8	2.9
B/C.N	7.1	5.7	6.1	2.8
YAC	1.2	2.5	0	1.8

FIGURE 15 A

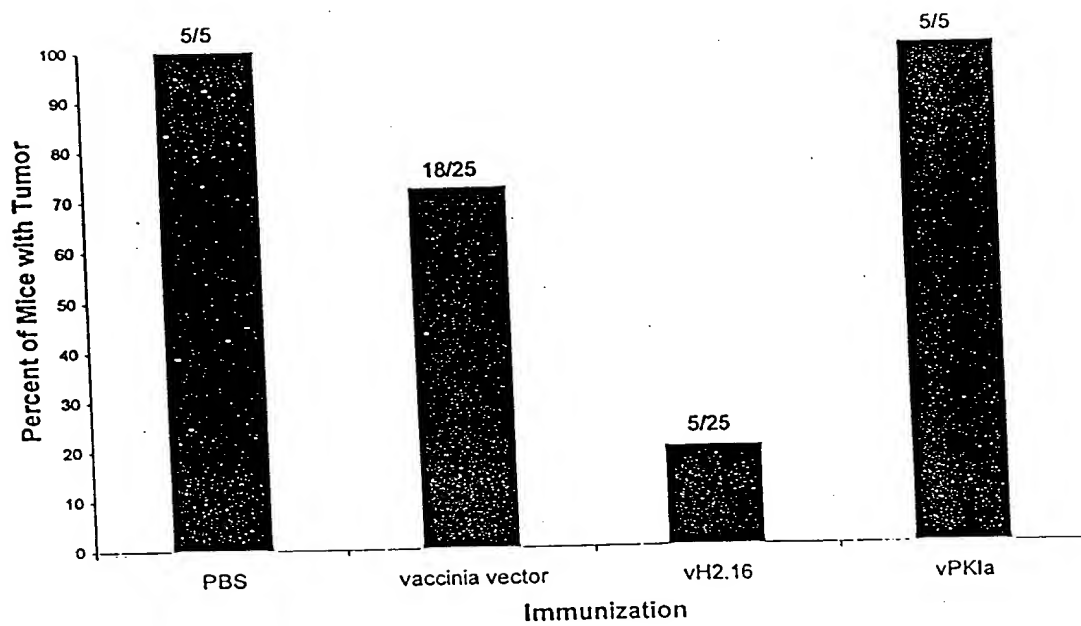


FIGURE 15B

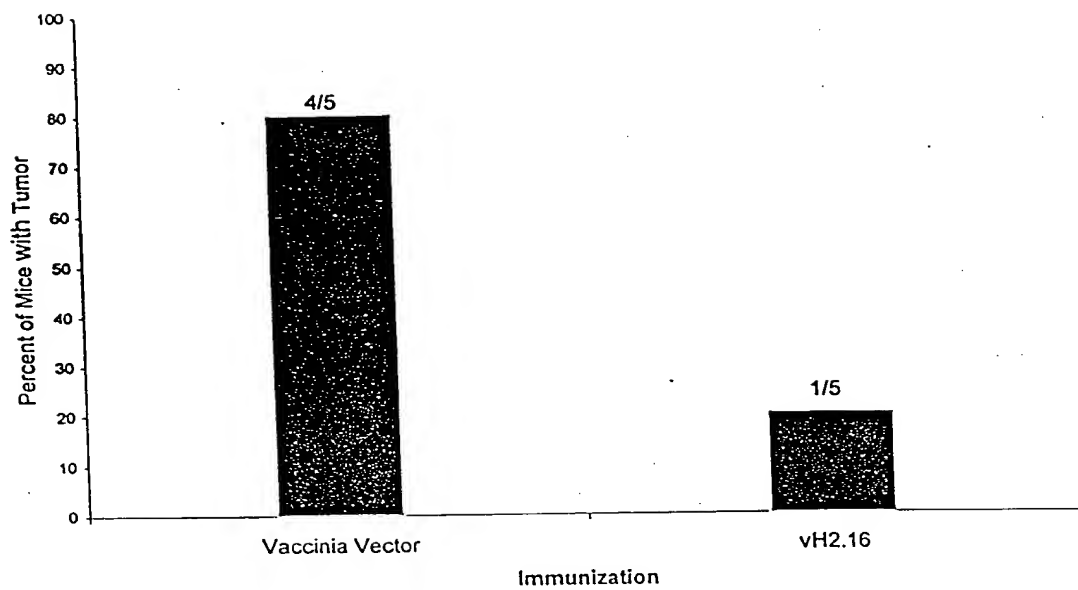


FIGURE 15C

A. Influenza Specific Cytolytic Activity of CD4+
CD45RA+ Human T Cells Stimulated in the Presence
of IL-12 and IL-18.

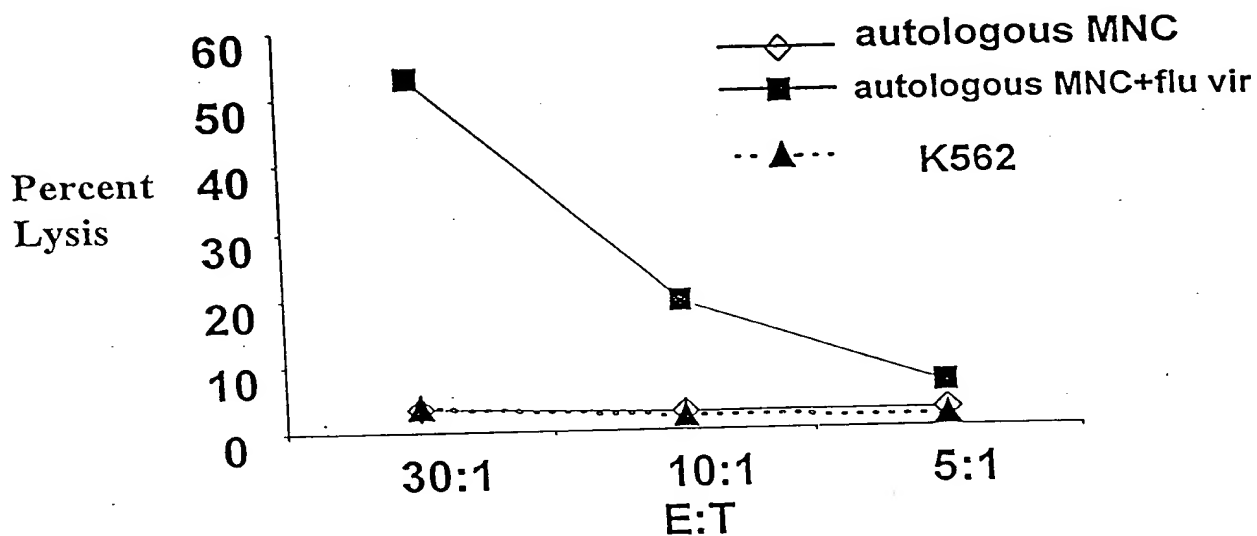
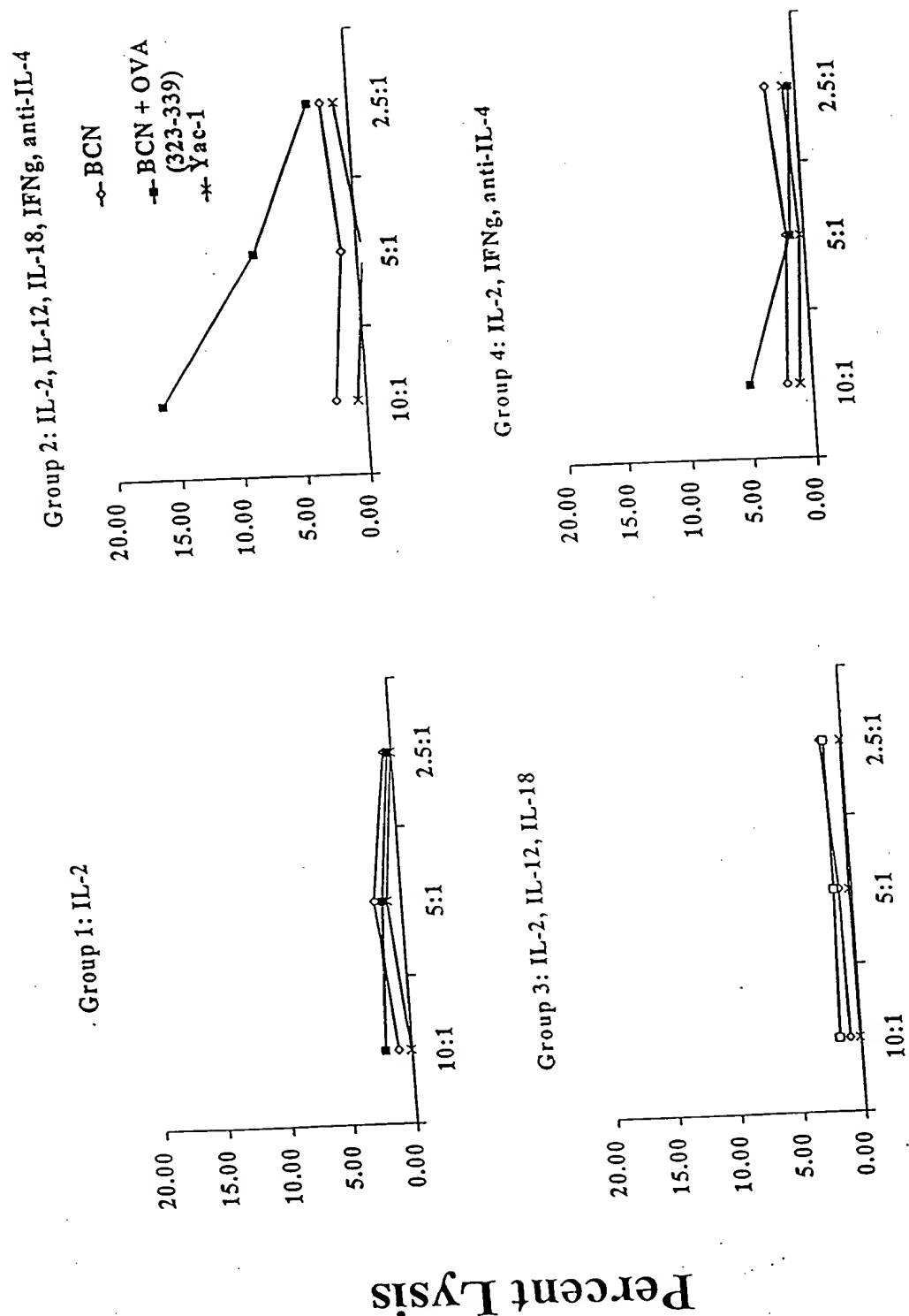


FIGURE 16

CD4+ Primary Cytotoxic T Cell response



E:T

FIGURE 17

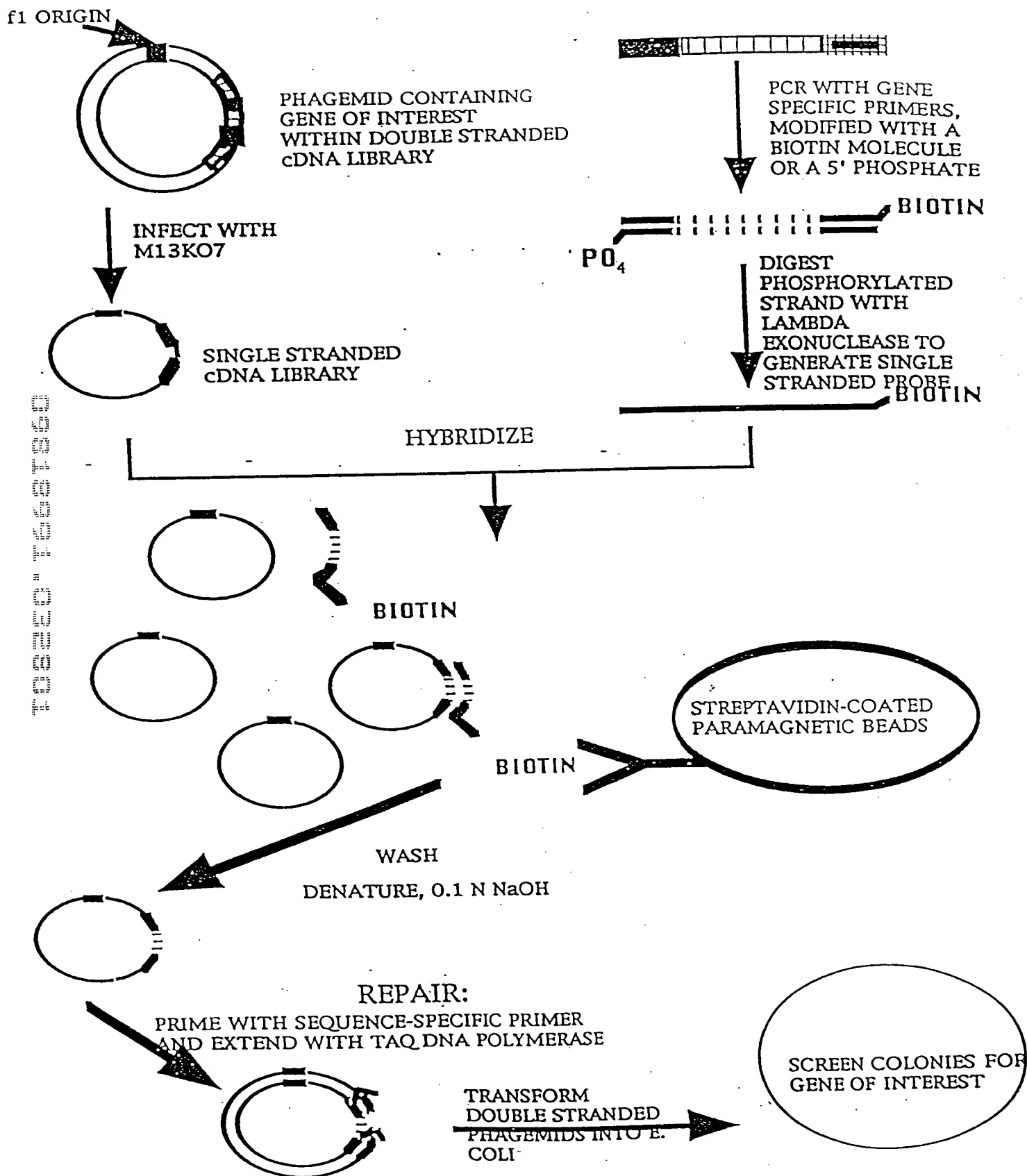


FIGURE 18

Herceptin (anti-Her2/neu) antibody sensitizes SK-BR-3 cells to antibody-dependent cellular cytotoxicity (ADCC)

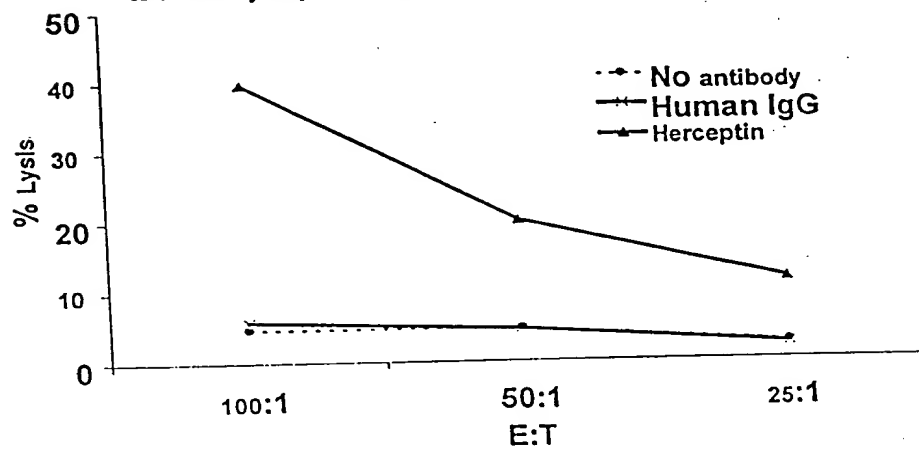


FIGURE 19

Tolerance to Alloantigens Induced in presence of Antigens and Anti-CD40 Ligand Antibody

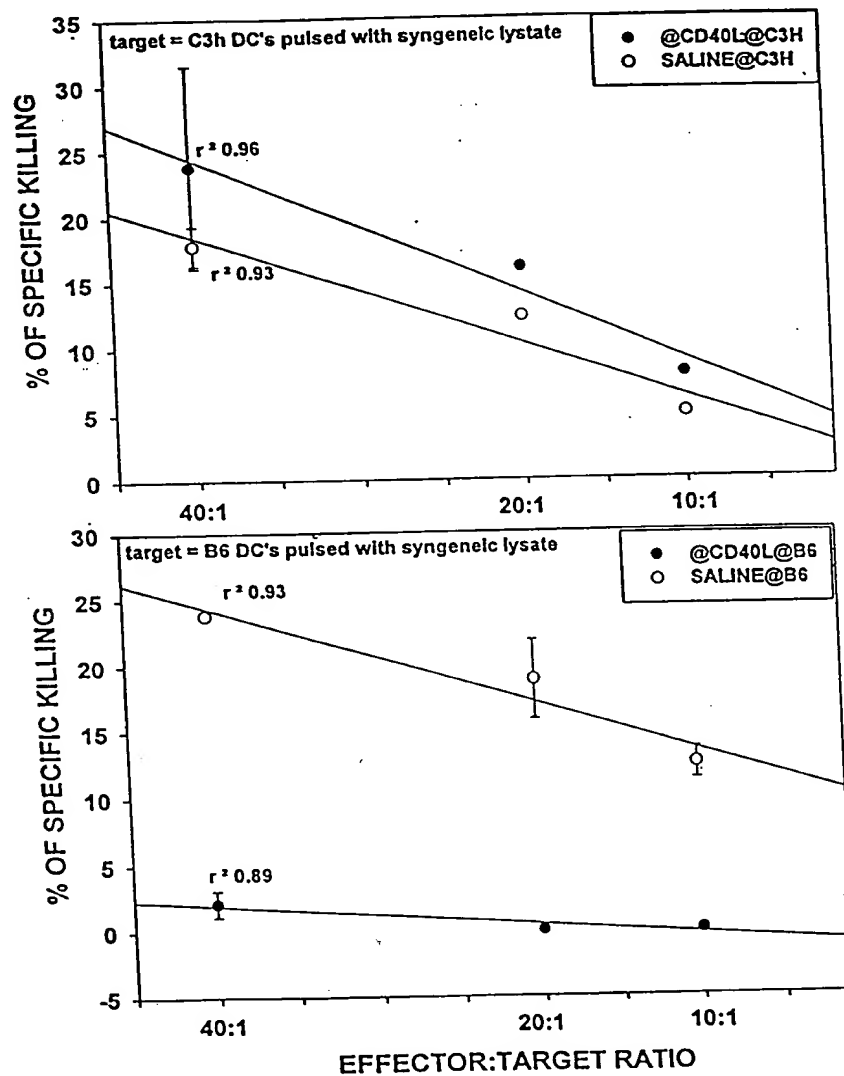


FIGURE 20

